



# MAMMOTH CAVE MOBILE

**SUBJECTS:** Science, Math, Language Arts, and Art

**GRADES:** K-3

**KERA GOALS:** Meets KERA goals 1, 2, 3, 5, and 6.

**ACADEMIC EXPECTATIONS:** visualizing; writing; visual arts; space and dimensionality; resourcefulness and creativity; decision making; and expanding existing knowledge.

**DURATION:** One 30-40 minute period

**GROUP SIZE:** One classroom of students (1-35)

**SETTING:** Indoors or Outdoors at tables

**KEY VOCABULARY:** Mammoth Cave National Park, plants, animals, people, rocks

**ANTICIPATORY SET:** "Does anyone remember what it takes to make a national park?"

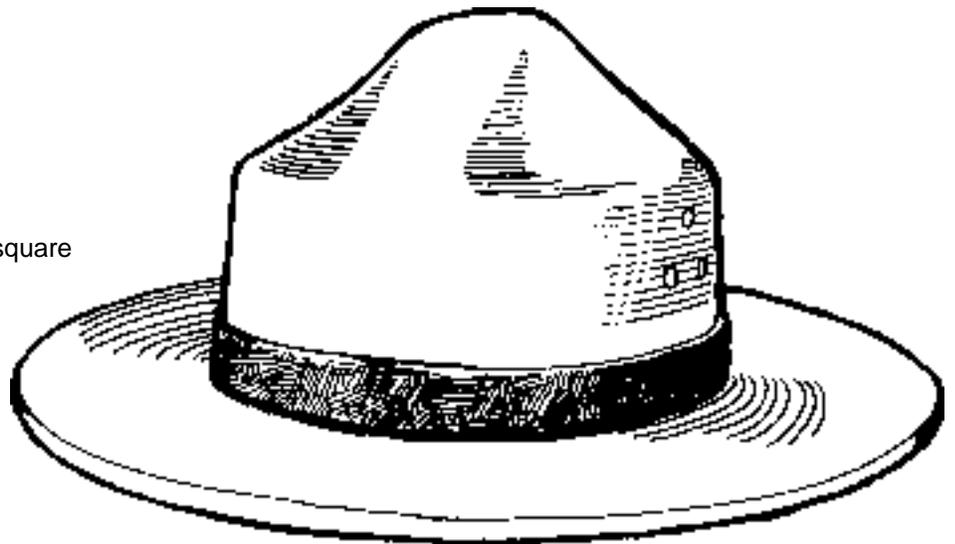
**OBJECTIVES:** The students will be able to: 1. identify the components of a national park and relate them to Mammoth Cave National Park; 2. match pictures with their appropriate titles.

**MATERIALS:** Each student will need:

- ◆ 2 drinking straws (or sticks)
- ◆ 6 twelve-inch pieces of string
- ◆ a piece of tape,
- ◆ a Mammoth Cave Mobile Sheet
- ◆ hole punch
- ◆ scissors
- ◆ crayons
- ◆ pencil
- ◆ one National Park Service symbol square

**BACKGROUND:** National parks are established to protect the resources found within their boundaries. These resources include plants, animals, rocks and the land, and people. People include visitors and the people that are important in the parks' history. Each park has significant resources that have helped to establish it as a national park.

Mammoth Cave National Park is important because of its diversity of life on the surface and underground. Some of the plants in the park include trees such as oaks, hickories, tulip poplars, and sycamores. Shrubs commonly found in the park include papaws and the spice bush. Common wild flowers include thistle, bluets, jack-in-the-pulpit, and bloodroot. The animal population is also very diverse. It includes animals such as bats, squirrels, deer, raccoons, opossums, chipmunks and many birds, including wild turkeys. The main rocks found in the park are limestone, sandstone, shale, and gypsum. Some of the people at Mammoth Cave National Park include rangers, visitors, explorers, guides, miners, and prehistoric Indians. These are just a few examples of the many resources in the park that help to make it unique. The most important link that ties them all together would be water-- the Green River on the surface and the groundwater at work in the cave. For more examples or information on these resources, feel free to contact the Environmental Education Coordinator at the park.



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## PROCEDURE:

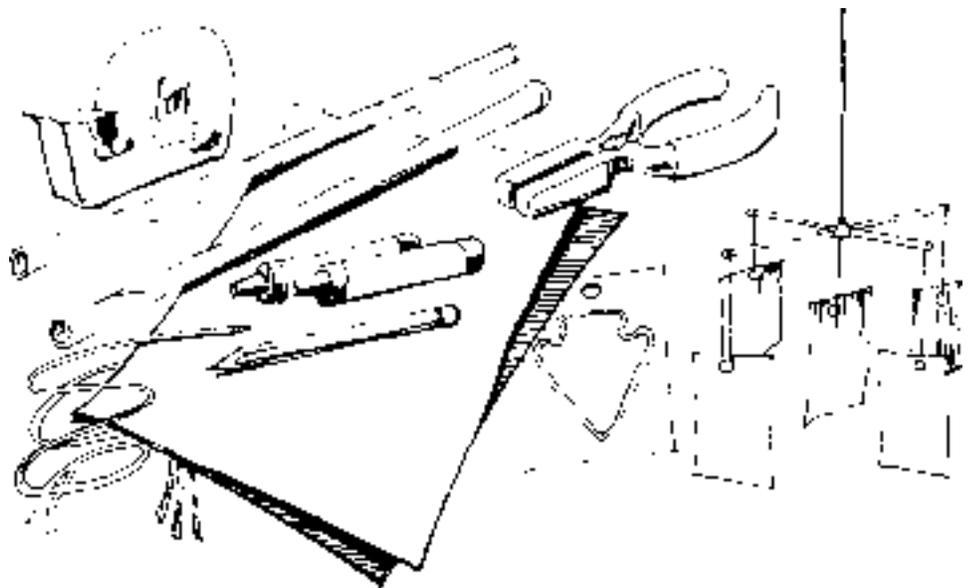
1. The teacher asks the students to recall what makes national parks important. The teacher writes the categories *plants*, *animals*, *rocks*, and *people* on the blackboard.
2. The teacher asks the students to think of a few animals that might be found in Mammoth Cave National Park. The teacher writes their answers under "animals," then does the same thing for each of the remaining categories. The teacher may need to tell the students answers for some of the categories. (It is best to use the answers from the mobile sheet as examples.)
3. The teacher passes out the mobile sheets to the students. They read the directions together. The students need to fill in the blanks on their sheets.
4. The teacher passes out the other supplies that are needed for the project. **Directions:** The students can color their squares and begin to assemble their mobiles. The two straws are crossed in the center and taped together. Glue or tape two pictures from the same category back-to-back. Hang a different category square to each end of a straw. To hang squares, punch a hole in each card so the string can be tied through it (or the string can be taped on). Hang the National Park Service symbol square from the center of the crossed straws.
5. The final step is to hang the mobile in your classroom to decorate the room.

**CLOSURE:** Today we talked about some of the things that make Mammoth Cave National Park important. As we continue to study about Mammoth Cave National Park we will learn more and more about what makes it very special.

**EVALUATION:** The teacher is able to evaluate the students by seeing how they label the parts of their mobile.

## EXTENSIONS:

1. Instead of using our mobile sheet, have the students draw pictures of plants, animals, rocks, and people that make Mammoth Cave National Park a special place.
2. Make one large classroom mobile with students' drawings of the many different resources found in Mammoth Cave National Park. The class could have more than one of each item under each category.
3. Make a class field guide that has pictures/drawings and names of the plants, animals, rocks and people that might be found in Mammoth Cave National Park. The students could pick just one category or they could do all four. They could be put together in a book to be used during a visit to the park.



## DID YOU KNOW THESE FUN FACTS ...

### ABOUT PLANTS?

- There are about 900 species of plants identified in Mammoth Cave National Park
- Twenty-one of these plants are listed as endangered, threatened, or of special concern.

### ABOUT ANIMALS?

- There are over 200 species of animals found inside Mammoth Cave. Twelve of these species are eyeless, and have no coloration or pigment.
- Three animals are federally endangered species – Kentucky cave shrimp, Indiana bat, and gray bat.
- The Green River on the surface has an unusual diversity of fish, five of which are found nowhere else in the world.

### ABOUT PEOPLE?

- Prehistoric people first explored Mammoth Cave around 2,000 to 4,000 years ago.
- In the late 1790s, white settlers rediscovered Mammoth Cave.
- Mammoth Cave has been used by miners, visitors, doctors, explorers, and others for around 200 years.
- Today, Mammoth Cave National Park has around 2.5 million visitors per year.

### ABOUT ROCKS?

- Limestone is made up of the shells of animals that lived in an ocean millions of years ago.
- Sandstone is made up of sand grains brought into this area by an ancient river.
- The limestone rock found in Mammoth Cave National Park is about 350 million years old. It is older than the dinosaurs.

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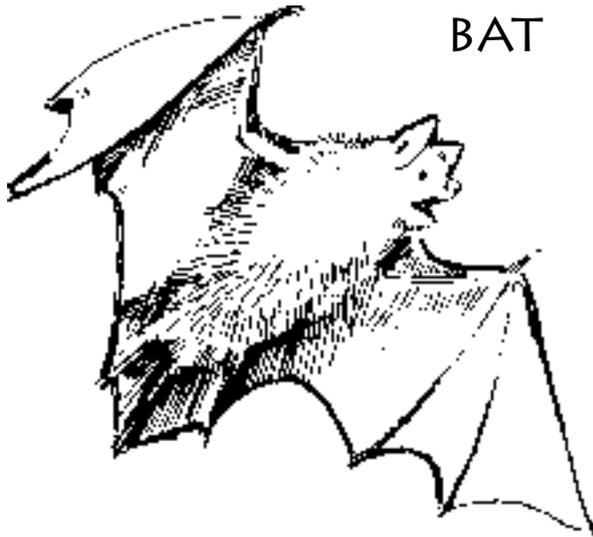
Directions: Choose a word from the list below and use it in the blanks in the picture squares.

ANIMALS

PLANTS

PEOPLE

ROCKS



BAT

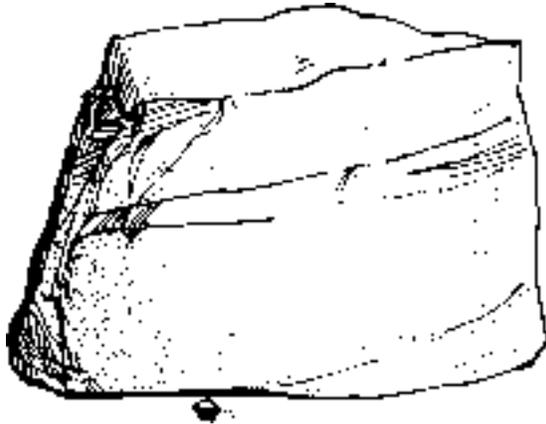
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RANGER



\_\_\_\_\_

SANDSTONE



\_\_\_\_\_



IRIS

\_\_\_\_\_

# MAMMOTH CAVE MOBILE

Directions: Choose a word from the list below and use it in the blanks in the picture squares.

ANIMALS

PLANTS

PEOPLE

ROCKS

KIDS



\_\_\_\_\_

SQUIRREL



\_\_\_\_\_

OAK  
LEAF



\_\_\_\_\_

LIMESTONE



\_\_\_\_\_

# NATIONAL PARK SERVICE SYMBOL SHEET

Each student receives one square.



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